

1977

## "Introduction" to *The Great Plains: Environment and Culture*

Frederick C. Luebke

University of Nebraska-Lincoln, fredluebke@comcast.net

Follow this and additional works at: <http://digitalcommons.unl.edu/historyfacpub>



Part of the [American Material Culture Commons](#), and the [United States History Commons](#)

---

Luebke, Frederick C., ""Introduction" to *The Great Plains: Environment and Culture*" (1977). *Faculty Publications, Department of History*. 171.

<http://digitalcommons.unl.edu/historyfacpub/171>

This Article is brought to you for free and open access by the History, Department of at DigitalCommons@University of Nebraska - Lincoln. It has been accepted for inclusion in Faculty Publications, Department of History by an authorized administrator of DigitalCommons@University of Nebraska - Lincoln.

# **The Great Plains**

## **Environment and Culture**

EDITED BY

Brian W. Blouet and Frederick C. Luebke

*Published by the*  
UNIVERSITY OF NEBRASKA PRESS • LINCOLN AND LONDON  
*for the*  
CENTER FOR GREAT PLAINS STUDIES University of  
Nebraska-Lincoln

## Preface

The essays in this volume were presented at the Cultural Heritage of the Plains Symposium, which was held on April 13-15, 1977, at the Nebraska Center for Continuing Education at the University of Nebraska-Lincoln. One of the major purposes of the conference was to launch the newly created Center for Great Plains Studies and to establish what has become a series of annual symposia treating plains topics and problems.

The idea of a Center for Great Plains Studies had been discussed for some years. In 1976 Dr. Max Larsen, Dean of the College of Arts and Sciences, developed the proposal to the point where it was given concrete form. The establishment of the center was approved by the Board of Regents on December 11, 1976, and in 1977 the University of Nebraska Foundation began its support of the scholarly activities of the center.

It is not possible to name all the people who helped with the arrangements for the Cultural Heritage of the Plains Symposium. Without the financial help of the Montgomery Lectureship fund, the UNL Convocations Committee, the UNL Research Council, and particularly the S & H Foundation, the program could not have been so rich and broad as it became. Because of the diversity of the program it was not possible to publish all the papers presented at the symposium. A number of those for which we could not find a place in the present volume have already appeared in scholarly journals. Papers treating literary topics are to be published in a separate volume.

We owe a collective debt to our colleagues on the program committee and particularly to Kathleen Avery, who acted as administrative assistant to the Center for Great Plains Studies during its formative months.

BRIAN W. BLOUET  
FREDERICK C. LUEBKE  
*University of Nebraska-Lincoln*

# Introduction

*Frederick C. Luebke*

A century ago, in 1878, Major John Wesley Powell presented his *Report on the Lands of the Arid Region of the United States* to his superiors in the Department of the Interior in Washington. The noted explorer and surveyor described the physical characteristics of the American West and advocated a series of fundamental changes in the land system of the federal government to bring policy into conformance with environmental realities. Writing only sixteen years after the passage of the Homestead Act, Powell pointed out that the agricultural frontier had extended westward by 1878 to the limits of where farming was possible without irrigation. Old laws based on experience in the humid East were obsolete; new laws appropriate for the semiarid West were needed. Solidly grounded in scientific fact as understood at that time, the report challenged widely held myths and fantasies that served the interests of persons devoted to the rapid exploitation of western resources. Political opposition was therefore intense and Powell's legislative proposals were never enacted.<sup>1</sup>

Although Powell may have been ignored by the legislators of his own time, his work has had substantial influence upon later interpretations of the Great Plains region. For many years most scholars, like Powell, interpreted the region as having an essential unity dictated by characteristics of physical geography. In Powell's view, the region was integrated by rainfall patterns of less than twenty inches per year, even though it displayed a notable variety in topography, soils, and climate.<sup>2</sup> His report implied that the physical forces of the Great Plains environment were so powerful that people could settle the region permanently and successfully only if they conformed or adapted their ways appropriately.

In contrast to Powell's environmentalism, other students of the American West have emphasized factors of time and culture. They have argued that the Great Plains must be analyzed in relation to

other parts of the country and of the world and that these relationships have changed notably with the passage of time. In their view, the question of whether the Great Plains possesses unity as a region is less significant than what actually happened there, because major events and developments are strongly and sometimes primarily conditioned by circumstances as they existed in the East or elsewhere at a particular time. Moreover, students of American regionalism have tended to ignore physiographic or climatic consistencies and to focus on the cultural characteristics of the people. They argue that regional unity emerges, not from the facts of physical geography, but from the values, attitudes, behaviors, and life-styles of the people who live there. For them the analytical key is found in historic patterns of migration and settlement.<sup>3</sup>

In the pages that follow I have summarized the views of certain selected scholars whose emphases seem to illustrate changing and contrasting interpretations of the interaction of environment and culture on the Great Plains. I have grouped their writings into two inclusive categories. First come those whose conceptual schemes suggest the primacy of environmental variables. I refer to these scholars, perhaps simplistically, as environmentalists, even though this term has acquired a different meaning in recent years. In the second group are several scholars, selected more arbitrarily than the first, whose writings seem to accord more importance to cultural factors. For present purposes I refer to them as culturalists. Then follow brief introductions to the essays included here, in which I suggest relationships to the environmentalist and culturalist views. Because of the diversity of concept and method employed by the several essayists, I make no effort to define the Great Plains or to delineate its boundaries.

The most influential scholar to build on the foundation laid by Powell was Walter Prescott Webb, a native of Texas and a professor of history at the University of Texas. Reading Powell's observations on the inhibiting effects of climate and topography confirmed Webb in his own environmentalist views. His book, *The Great Plains*, was published in 1931 and remains to this day the most widely read single volume on the region.<sup>4</sup>

At the heart of Webb's interpretation was his conception of the Great Plains as an environment unified by its flatness, lack of trees, and semiaridity. He argued that the methods used by Americans to master the wilderness had been developed in areas where trees and water were abundant. The frontier of agricultural settlement moved steadily westward until it reached the Great Plains; there it faltered

for several decades in the middle of the nineteenth century, unable to overcome the natural obstacles of the region or to displace its fierce and hostile Indian tribes. In the East "civilization rested on three legs—land, water, and timber," wrote Webb; but in the West "not one but two of the legs were withdrawn,—water and timber,—and civilization was left on one leg—land. It is small wonder that it toppled over in temporary failure."<sup>5</sup> Successful settlement of the plains had to await the development of suitable tools and techniques, such as the revolver, the railroad, the windmill, and the barbed-wire fence, as well as methods of irrigation, dry farming, and the evolution of appropriate land and water laws. In the meantime, according to Webb, agricultural settlement bypassed the Great Plains for outposts on the Pacific Coast. A second attempt at settlement was made after the Civil War. This time it was successful, and the Great Plains region was populated rapidly, especially after 1880.

Webb also insisted that the West could be understood only through appropriate contrasts with the East. "In history," he wrote, "the differences are more important than the similarities," for the West was no "mere extension of things Eastern." The comparisons he made, based as they were on physical differences between the plains and the woodland East, tempted him to ignore important contrasts within the region and to accord it greater geographical unity than most geographers would be willing to accept. The thesis required that sharp distinctions be drawn; he insisted that the eastern boundary of the plains was definite even though "when people first crossed this line they did not immediately realize the imperceptible change that had taken place in their environment." Webb located this line in the vicinity of the 98th meridian. So clearly did he discern the break that he compared it to a geological fault and asserted that at this line "practically every institution that was carried across it was either broken or remade or else greatly altered."<sup>6</sup>

In a passage reminiscent of Frederick Jackson Turner, Webb romanticized his thesis:

Let us visualize the American approach to the Great Plains by imagining ourselves at the point where the ninety-eighth meridian cuts the thirty-first parallel [a few miles north of Austin, Texas]. As we gaze northward we see on the right side the forested and well-watered country and on the left side the arid, treeless plain. On the right we see a nation of people coming slowly but persistently through the forest, felling trees, building cabins, making rail fences, digging shallow wells, or drinking from the numerous springs and perennial streams, advancing shoulder to shoulder, pushing the natives westward toward the open country. They are nearing

the Plains. Then, in the first half of the nineteenth century, we see the advance guard of this moving host of forest homemakers emerge into the new environment, where there are no forests, no logs for cabins, no rails for fences, few springs and running streams. Before them is a wide land infested by a fierce breed of Indians, mounted, ferocious, unconquerable, terrible in their mercilessness. They see a natural barrier made more formidable by a human barrier of untamed savagery. Upon this barrier of the Great Plains the pioneers threw themselves, armed and equipped with the weapons, tools, ideas, and institutions which had served them so long and so well in the woods that now lay behind them. Inevitably they failed in their first efforts, and they continued to fail until they worked out a technique of pioneering adapted to the Plains rather than to the woodland.<sup>7</sup>

From his vantage point in Austin and perhaps with the Cross Timbers in his mind's eye, Webb projected the Texas experience onto the entire Great Plains region, where the idea was less applicable. If the agricultural frontier halted anywhere north of Texas in the first half of the nineteenth century, it was not in the vicinity of the 98th meridian but rather at the western boundaries of Arkansas and Missouri. It was not because pioneering techniques had failed in a new and strange environment but because the land to the west was reserved at that time for Indian tribes, some of whom had been brought there by the federal government from the East. The area was closed by law to settlement until the Kansas and Nebraska territories were organized in 1854 and treaties with indigenous tribes were negotiated. Meanwhile, the agricultural frontier moved steadily up the Missouri River valley, north and west across Missouri and Iowa into Nebraska, and later into Dakota. In 1860, when Nebraska Territory encompassed the entire northern Great Plains to the Canadian border, the census registered fewer than twenty-nine thousand inhabitants, all but a few hundred living within twenty miles of the Missouri River in the southeastern corner of the territory. Not until the 1870s, a decade stricken by economic depression, drought, and grasshopper plagues, did the agricultural frontier reach Webb's institutional fault line. Demographic studies have shown that at no time did the westward sweep of settlement falter or hesitate as it approached the 98th meridian on the central or northern plains. At no time had civilization "toppled over in temporary failure."<sup>8</sup>

Although historiographers have customarily placed Webb in the tradition of Frederick Jackson Turner, the Texas historian properly objected to that easy classification. Turner taught that the American historical experience and character derived from a continuous

process in which each generation built upon the experiences of its predecessor until the continent was crossed. Webb insisted that Turner's thesis was valid for woodlands only, and that the Great Plains experience was qualitatively different: previous frontier experiences were largely irrelevant, as the alleged hesitation at the 98th meridian demonstrated.

In 1939 Webb's most severe critic, Fred A. Shannon, attacked *The Great Plains* on Turnerian grounds, although he did not invoke Turner's name. A University of Illinois historian who subsequently included Great Plains agriculture in his 1945 book, *The Farmer's Last Frontier*, Shannon disputed Webb's interpretation of the Great Plains as having regional unity and he rejected the description of the 98th meridian as an institutional fault line. Each frontier, Shannon insisted, was different from its predecessors and required the pioneers to make adjustments in their farming methods. If Webb had "shown how the problems of a relatively treeless country started at the edge of the eastern prairies and became more intensified, step by step, till the actual deserts of Arizona, Utah, and California were occupied, he would have performed a far greater service." But what distressed Shannon most was Webb's tendency, as he saw it, to use only evidence that supported his thesis and to ignore the rest.<sup>9</sup>

In 1947, sixteen years after the publication of *The Great Plains*, James C. Malin, a historian at the University of Kansas, published a volume intended as an interdisciplinary preface to the history of the Great Plains. Malin drew upon studies in biology, geography, and soil science to describe the ecology of *The Grassland of North America*, as he titled his highly unconventional book.

To Webb the Great Plains environment was a powerful, dominating force that required men to conform to its dictates; to Malin the environment was the physical setting in which plants and animals, if undisturbed, naturally existed in harmonious relationships—a delicate ecological balance. The important question for Malin was how well men fit their "culture into conformity with the requirement of maintaining rather than disrupting environmental equilibrium."<sup>10</sup> In order to understand the history of human occupancy of the region, one needed first to understand its plant and animal life, climate, geology, geography, and soils. Then one could go on to evaluate the adaptations that men had made to them. Thus, the first half of *The Grassland* treats plant and animal ecology, climate, geology, soils, and factors in grassland equilibrium; the second summarizes the individual contributions of pioneers in the study of the Great Plains, analyzes Webb and his regionalism, presents sample



population and agricultural studies, and concludes with an exhaustive bibliography.

Unlike Webb's environmentalism, Malin's ecological interpretation left no room for determinism. He was especially sensitive on this point because during the Great Depression of the 1930s social and biological scientists were strongly attracted to determinist views in order, Malin wrote, to justify social policy. "At every turn one meets the dictum that low-rainfall climate makes necessary a collective form of society." In Malin's view, the existence of more than one possibility for action eliminated the element of determinism—there were always several ways to achieve a specific end. Culture often influenced the choices men made, he wrote, and alternatives were often consciously developed. Moreover, technological improvements from time to time were being discovered and utilized. Indeed, he observed, it was the peculiar combination of technology and culture in a particular place, such as the Great Plains, that could distinguish one region from another. Thus, while Malin's interpretation of the Great Plains was primarily rooted in environment, he insisted that culture was also of fundamental importance, even though he did not pursue the matter in the book.<sup>11</sup>

Interregional dependency, however, was a theme that infused Malin's criticism of Webb's *The Great Plains*. Although Malin hailed the book as a landmark in the regional approach to the West and recognized it as an implicit criticism of Turner's frontier thesis, he thought that Webb had insufficiently related the rapid settlement of the plains after 1870 to eastern technological developments. "It is beside the point," wrote Malin in an illustrative passage, "to argue that windmills did not come in quantity until the 1880s. To place windmills within the financial reach of the average pioneer farmer awaited cheap steel, mass production methods, as well as mechanical refinements of machine design."<sup>12</sup> Moreover, the devices used by the frontiersmen to conquer the plains were developed independently of, not in response to, their needs. Once they became available, they were applied successfully to the specific problems of the plains region. Thus, Malin's work is profoundly environmentalist and, at the same time, free of environmental determinism.

The last of the environmentalist interpretations in the tradition of John Wesley Powell to be considered here is Carl Kraenzel's *The Great Plains in Transition*, first published in 1955. A Montana sociologist, Kraenzel echoed Webb in asserting that the Great Plains was a clearly distinguishable region. But its unity had been virtually destroyed by the forest-land culture imported by settlers from eastern,

humid areas. Kraenzel describes the settlers' failure to adjust their ways to new circumstances:

Inexperienced in the conditions that made for uniqueness of a semi-arid land, they did not look for the explanation of their hardships in the inappropriateness of the forest-land way of living. They failed to see the need for fitting their institutions and their philosophy to the facts of semi-aridity in the Plains. And there was no help to be found in any of the customary, traditional patterns of contending with the environment.<sup>13</sup>

Institutions, which naturally lack plasticity, were transferred from the forest lands and imposed upon the plains environment without needed modifications. Now firmly entrenched, these institutions have stoutly resisted adaptation.<sup>14</sup>

Kraenzel's basic assumption is "that a humid-area type of civilization cannot thrive in the semi-arid American Plains without constant subsidy, or, lacking this, without repeated impoverishment of the residents." Throughout its history, the Great Plains has remained an exploited hinterland and its residents have displayed the attitudes and conduct typical of minority groups. Kraenzel's solution to the problem of the Great Plains was strongly deterministic. Writing in a vein reminiscent of William Graham Sumner ("root, hog, or die"), Kraenzel's message was a blunt "adapt or get out." People who cannot or will not make the appropriate adjustments must leave, and the few who remain will have to choose between "a feast-and-famine type of existence or a standard of living well below that of most other parts of the country."<sup>15</sup>

How should the people of the plains adapt? Kraenzel's answer was in the development of a thoroughgoing regionalism. By this he meant "the unique but democratic ordering and programming of economic, social, and living activities of a common area, through political and all other avenues, so that the greatest possible advantages can accrue to these residents."<sup>16</sup> In this way, Kraenzel believed, the Great Plains could once again attain the essential unity it had lost.

Although as a sociologist Kraenzel was not wedded to a spatial interpretation, his commitment to regionalism led him to accept uncritically Webb's notion that the agricultural frontier had hesitated at a cultural fault line. "For several decades prior to 1880," wrote Kraenzel, "in spite of the Homestead Act, the westward push of settlement was almost stationary and came to a halt along the ninety-eighth meridian. Following the Civil War, cattlemen established themselves in the region and sheepmen roamed about in it, but the

agriculturists appeared to hesitate." This was "not only because of the Indians on the Plains, but because of a basic recognition that this vast area was different from the humid and forested area through which the settlers had come."<sup>17</sup>

Yet there are important differences between Webb's and Kraenzel's interpretations. In Webb's schema, agriculturalists from the forested lands of the East were unable to cross the cultural fault line successfully or permanently until appropriate adaptations had been made; Kraenzel more or less assumes that the region had been occupied by easterners, the inappropriateness of their forest-oriented institutions notwithstanding, and that their continued occupancy depended upon present and future adjustments to environmental realities. For Webb hesitation at the 98th meridian was essential to his thesis; for Kraenzel it was a matter of only incidental importance.

Few scholars like to be tagged as determinists and Kraenzel was no exception. He described his own interpretation as a middle position between environmental and cultural poles. While the environment established limits beyond which culture could not go, he wrote, within those limits culture could produce much variety.<sup>18</sup>

If Kraenzel was willing to admit the theoretical importance of culture, other scholars eagerly used cultural concepts in their research designs. This is especially true of geographers, folklorists, linguists, and others who have studied the regional diversity of the United States. Although they have not entirely ignored environmental factors, they have focused on cultural variables such as religious belief, political behavior, folk architecture, and speech. Since a given place often remains imprinted with the characteristics of its first settlers, patterns of migration have become central in their research, and they have shown that the flow of culture has normally followed parallel east-to-west lines.<sup>19</sup> The culture of North Dakota, for example, more closely resembles that of Minnesota and Wisconsin than that of Nebraska and Kansas; similarly, the culture of the Southern Plains has more in common with that of Arkansas and Tennessee than with that of northern states. Hence, for the purposes of most culturalists, the Great Plains, with a north-south orientation, are not a useful unit of study and therefore they have tended to ignore the region.<sup>20</sup>

Historians also have found the concept of environmentalism inadequate for their purposes. In 1955, the same year that Kraenzel's book appeared, Earl Pomeroy wrote an influential essay entitled "Toward a Reorientation of Western History: Continuity and Environment." Pomeroy criticized historians for their tendency to

study aspects of western experience in which environmental influences were obvious. "They argue the importance of environmental influences in the West while demanding that the West qualify as West by being the place where the environment predominates."<sup>21</sup> Echoing Shannon's criticism of Webb, Pomeroy also charged that they tend to avoid evidence that does not fit the environmentalist formula. He insisted that the facts testifying to the continuity of culture brought to the West cannot be ignored and that fundamentally westerners have been imitators, not innovators; conformists, not radicals.<sup>22</sup> In Pomeroy's view, economic historians had charted the new course as they shifted attention from the pageantry of adventurous trappers, prospectors, and cowboys to questions of investment capital and management. Western radicalism was a reaction to the concentration of eastern economic power, Pomeroy suggested, not to western atmosphere. Similar orientations were needed in social and cultural studies in order to illuminate relations between the settled East and frontier West and to reveal continuities in religion, education, class structures, elites as culture bearers, and the army as an ingredient in western society and economy.

Although Pomeroy's essay, with its emphasis on continuities rather than contrasts, shares in the neoconservatism that infused American historiography during the 1950s, it is more than that. It reflects as well the long-term emphases of Pomeroy's own work and that of his students.<sup>23</sup> Pomeroy, like Webb and the environmentalists, also stressed the importance of interdisciplinary research and the use of comparative methods in the study of social and political developments in the West. But his essay was especially a criticism of scholars whose emphasis was on space rather than on time, differences instead of similarities, and on the West as "no mere extension of things Eastern."<sup>24</sup>

Pomeroy's plea for a reorientation of western history was carried forward in 1964 by Robert Berkhofer in an article entitled "Space, Time, Culture, and the New Frontier." Berkhofer agreed that the history of the West in every period had to be placed in a larger context, but his main purpose was to show "how the American frontier should be viewed in the perspective of modern social theory." Much of Berkhofer's analysis pivots on changing concepts of culture. He shows first that Frederick Jackson Turner and the environmentalists who followed him were naturally influenced by contemporary thought to accord space premier importance as a causative agent, with time and culture in secondary positions.<sup>25</sup> For them culture referred essentially to behavior and artifact—"an inherited part of

the social organism.” But in more recent times, Berkhofer pointed out, culture has come to mean a normative system serving as a blueprint for behavior, rather than the behavior itself:

Thus a person's culture prescribes what ought to be done, delimits what may be done, and defines what exists, or concerns what are frequently called values, norms, and beliefs. Culture, then, shapes the nature of the institutions in a society and the roles a person plays in them. Culture also filters the perception of reality. What a person accepts as “fact” is highly conditioned by his value-orientation. It is assumed that the various cultural by-patterns, such as subsystems and institutions, fit into an overall configuration that provides that culture's unique integration.<sup>26</sup>

Lacking such an understanding of culture, the environmentalists overestimated the effect climate, terrain, and vegetation have in human affairs. While a person may alter his behavior, wrote Berkhofer, he may do so reluctantly and his conception of what is desirable may not change at all. Thus, if we are to explain the American West in terms of modern social theory, we must consider the prevailing cultural system of the time as the fundamental determinant, because the ways in which man responds to environmental forces are “highly conditioned by the cultural screen through which the stimulus passes.”<sup>27</sup>

Berkhofer noted further that technological improvements enhance the ability of a society to transcend the limitations imposed by the physical environment. This was the real message hidden in Webb's environmental thesis; it was a relationship largely ignored by Kraenzel. Berkhofer further observed that political, social, and religious institutions are far less subject to environmental influence than economic institutions, since the latter are dependent upon environmental products much more than the former. When Webb asserted that “practically every institution” was transformed in the flat, treeless, semiarid Great Plains environment, he was in fact analyzing the more easily influenced economic institutions. But, observed Berkhofer,

More important than lush grass in the rapid spread of cattle ranching on the plains was expanding industrialism which provided eastern workers' mouths to eat beef and railroads to get it to their tables. Furthermore, the railroad speeded up the settlement of the plains by farmers and ended the open range grazing. Railroads gave these same farmers access to market and brought them the new farm machinery which enabled them to stay in business. Environment did alter some manifestations of the economic institutions of the time, but commercialized farming and the pursuit of

profit determined the main outline of plains capitalism. Except for water and land laws, this frontier would seem to have had no effect on political institutions.<sup>28</sup>

Berkhofer concluded that the frontier should not be viewed, as Webb had seen it, as an area or space that demanded innovation, but rather as an opportunity within a time framework for the proliferation of imported institutions that "enabled a greater number of people to participate at higher levels in them than would have been possible in a society without a frontier."<sup>29</sup>

E. Cotton Mather provides another variation of the culturalist point of view. In an article on the Great Plains as a geographic region, he flatly rejects the notion that the Great Plains are characterized by physiographic unity. Instead, Mather describes the unexpected diversity of the region and then shows that such unity as it possesses emerges from cultural traits that have persisted throughout its history and remain prominent today. In Mather's interpretation, Great Plains culture derives from its character as a transit region. The temperament of the people, for example, has been conditioned historically by Texas drovers moving cattle to railheads in Kansas, migrants headed for farms or mines farther west, and builders of great transcontinental railroads and more recently of interstate highways. For such persons the Great Plains have been a place to move through rather than to. Moreover, tourists, suitcase farmers, migrant laborers, and combine crews have imprinted the region with nomadism. Billboards, truck stops, motels, and fast-food restaurants testify to the dominance of great space without centers. Moreover, the cowboy image, symbolic of past and present, has become transcendent in Great Plains culture as western garb, rodeos, "frontier day" celebrations, and the widespread ownership of horses demonstrate. Finally, Great Plainsmen have become addicted to what Mather calls megalophilia—a passion for bigness. Texans in particular are promulgators of a distinctive Great Plains culture characterized by preoccupation with innovation on a grand scale ranging from the world's biggest drive-in theater to immense cattle ranches and feedlots.<sup>30</sup>

Mather makes the additional point, almost in passing, that most students of the Great Plains have ignored its culture because of self-imposed restrictions. They fetter themselves with statistical concepts and market psychology, asserts Mather; if they could free themselves, for example, from the limitations of visual perception and listen to the distinctive sounds and smells of the region they would more readily perceive the uniqueness of Great Plains culture.<sup>31</sup>

To environmentalists like Webb, the question of place or region is paramount; to culturalists like Berkhofer, that which people brought to a place or region is most important. In the former view, the validity of studying the Great Plains as a region with more or less uniform characteristics is taken for granted; in the latter, the unity of the Great Plains is almost inconsequential, since such topics as railroad development, the immigration of ethnic groups, the cattle industry, or architectural forms are studied with only secondary reference to place. It would be a mistake, however, to draw too heavy a line between the two conceptual structures because they are subject to effective synthesis in the hands of a skilled analyst, as Donald W. Meinig illustrates in his *Imperial Texas: An Interpretive Essay in Cultural Geography*, published in 1969. His purpose is to show how Texas, both "a distinct culture area" and "an autonomous functional region," evolved historically from an early simple framework to its present complexity—a neat blend of Berkhofer's space, time, and culture. Meinig's concern for culture leads him to emphasize who the people of Texas are, "where they came from, where they settled, and how they are proportioned one to another and from place to place." His concern for spatial relationships leads to emphases "upon strategies of territorial organizations, how areas have been brought into focus, connected to another, and bound up into larger networks of circulation." Both in turn are applied to "the successive layers of Texas history." Thus the uniqueness of Texas history is interpreted as emerging from the confluence of environmental and cultural factors. What distinguishes Meinig's view from that of the environmentalists is the working assumption that race, ethnicity, language, religion, and custom continue to identify and separate Americans in fundamental ways and that the Texas environment, itself highly varied, has not produced a composite or homogenized Texan, popular lore to the contrary.<sup>32</sup>

The twelve essays included in this volume demonstrate that both the environmentalist and culturalist points of view continue to have vitality and that it is possible to integrate the two successfully. How one's essay is to be organized—spatially, temporally, or culturally—depends upon the question being asked. For some contributors the Great Plains is an environment that strongly influenced human behavior and modified it in important ways. For others the Great Plains is merely the place where the cultural phenomena under study occurred. Each scholar employs a methodology that is appropriate to his inquiry and none debates the validity of the Great Plains as an organizing concept.

In the initial essay, Waldo Wedel, an anthropologist, approaches

his topic—cultural adaptations in the Republican River basin of Colorado, Nebraska, and Kansas—in the manner of the environmentalists. First he establishes the spatial and temporal limits of his investigation and then, beginning with the earliest known inhabitants of the area, he traces changes in the ways of life of mammoth-hunting societies of more than twelve thousand years ago, through forager groups, to horticultural communities that began to occupy the valley a thousand years ago. Lacking the technology to surmount unfavorable environmental conditions, prehistoric inhabitants were entirely dependent upon the plant and animal life of the valley. Climatic fluctuations account for most of the changes in their way of life, but with the advent of Woodland culture about two thousand years ago, social and technological skills were introduced from the east that led to a village tradition. Subsequently horticulture was supplemented by seasonal bison hunts. Wedel concludes his account with the changes wrought by the arrival of white culture in the area.

The second essay, by G. Malcolm Lewis, a geographer, illustrates Berkhofer's point that culture as understood in modern social theory filters perceptions of reality and that culture, rather than space, should serve as the starting point for the study of a frontier. Lewis first draws on psychophysiology to show how varied and selective human perceptions of stimuli may be. He then reviews the various ways in which Indians and early explorers of the eighteenth century cognized the Great Plains, how the region acquired its name, and what images were associated with this appellation in more recent times, especially in the nineteenth century.

The problem of environmental cognition is developed further by Bradley Baltensperger, a geographer, in his study of late-nineteenth-century agricultural adaptation in the Republican River valley, the same general area studied by Waldo Wedel. Baltensperger analyzes first the origins of migrants into the area in order to determine the character of their previous farming experience and, second, the preconceptions the settlers had about the Great Plains region and its agricultural possibilities. Although the earliest farmers, who had experienced the drought of the mid-1870s, diversified their crops in order to survive, the second wave of migrants arrived in a period of ample rainfall and, influenced by boomer literature and the slogan "rain follows the plow," relied excessively on crops of corn. By the end of the devastating dry cycle of the 1890s, farmers of the Republican River valley had abandoned concepts of weather modification and had begun experiments with irrigation and dry-farming techniques. It was a case, as Kraenzel put it, of "adapt or get out."

Ever since the 1880s the Great Plains has produced substantial



agricultural surpluses for the world market. Naturally the prices farmers received were determined partly by conditions external to the region. Questions of agricultural income and government support during times of environmental and economic adversity have inevitably dominated much of the political life of the plains. In his study of Nebraska Populism, David S. Trask, a historian, notes that the third-party movement was strongest in counties located along the eastern edge of the Great Plains, an area in which agricultural practice was often inappropriate for the marginal amounts of rain that could be expected there. Trask specifically links the Populist movement to the effort of farmers to sustain a corn-hog operation in parts of Nebraska where the climate rendered it unsuitable. During the 1890s, Trask shows, farmers in the Populist belt made an accommodation to the environment by increasing their production of wheat. Populism as an expression of agrarian discontent disappeared accordingly. Trask also shows that ethnocultural issues such as prohibition, which were entirely unrelated to questions of environment, also influenced the agrarian political reform movement of the 1890s.

At the same time that the Populists were advocating political solutions to the problems of farmers in the transitional area between the humid East and arid West, a group of propagandists advanced irrigation as the key to development in the Great Plains. Timothy Rickard, a geographer, analyzes these ideas and explains their fate. He describes how these men, in their enthusiasm, enlarged the area requiring irrigation eastward to the 97th meridian, denigrated dry-farming techniques along with rain-making schemes, rejected ranching as wasteful of the region's resources, and projected an image of the Great Plains as a potentially rich, heavily populated Western Empire. In effect, the irrigationists urged an accommodation so extreme that it was unrealistic in terms of the water, land, and technology available at the time. Hence, as memories of the drought of the 1890s faded, irrigationist propaganda ceased and dry-farming methods won wide acceptance on the Great Plains early in the twentieth century.

Among the essays of this volume that best illustrate the culturalist point of view is John Hudson's study of the development of country towns on the Great Plains. Hudson, a geographer, shows that the characteristics that distinguish these communities from their eastern counterparts were due to time of settlement as much as to environmental forces. "The later the settlement," he writes, "the larger the accumulated stock of material and nonmaterial cultural traits that are of potential importance." The internal geography of

these towns and their functions, number, and spacing emerged from the special circumstances of settlement in the late nineteenth and early twentieth centuries, of which the technology of transportation was most important. Town life was strongly influenced by the standardization in American business practice, manufactured goods, and buildings that had occurred by the time most plains towns were founded. Standardization reached its fullest development in the architecture of the railroad depot, which on the plains replaced the courthouse as the focal point of the country town.

Roger Grant, a historian, details the origin and development of the standardized railroad station as an architectural form. Although the designs of these structures were obviously imports brought to the region from the eastern railroad headquarters, they also were outstanding examples of architectural adaptations to the Great Plains environment. The cheaply constructed, stylistically sterile buildings were centers of town activity. The combination freight and passenger depot of wooden construction with living quarters for the agent was especially distinctive to the region because the railroads were usually constructed before the area served was settled. It was only on the Great Plains that railroad companies made extensive use of pre-fabricated, portable depots.

The essay by Douglas Hurt, a historian, is clearly in the environmentalist tradition of Malin and Kraenzel. Hurt describes how farmers of the Great Plains tried to protect their land from severe drought and destructive winds during the 1930s. During the previous two decades farmers had violated the ecological balance of the area by cultivating marginal lands; they retained inappropriate agricultural practices brought to the region from the East; and they abandoned practices capable of checking blowing soil that had been known to them for several decades. With the advent of Dust Bowl conditions in 1932 farmers either had to adjust or get out. Hurt then reviews the agricultural technology that farmers, encouraged by government agencies, employed to cope with wind erosion—methods including the use of farm implements such as listers and harrows, terracing and contour plowing, and the revegetation of plowed land with native grasses.

Leslie Hewes, a geographer, returns to the problem of harmonizing agricultural practice with environmental conditions that concerned James Malin. In his essay on agricultural risk in the modern era, Hewes makes imaginative use of the rates charged by insurance companies to measure the hazards perceived for specific areas within the Great Plains. Significant differences exist within the area; the

100th meridian generally serves as a warning line from Kansas southward. In order to reduce risk, farmers have adopted a variety of inter-related practices, especially summer fallow, protective covers of crop residue, and alternating strips of crops and fallow. In general, farmers have adjusted well to the physical conditions of the Great Plains, but important ecological imbalances remain, manifested in continued high-risk farming in the Dust Bowl, saline seep on fallowed land in the northern plains, and excessive use of underground water resources in the central and southern plains.

The contribution of historian Gilbert Fite is in the environmental tradition of Webb and Kraenzel. After surveying the cycles of hope and despair that have been associated with alternating periods of abundant rainfall and severe drought, Fite illustrates how people of the plains have adapted their agricultural practices, governmental relationships, and institutional arrangements to environmental realities. Like Hewes, Fite believes that they have adjusted reasonably well, even though modifications are made reluctantly and only when forced by crisis and necessity. These adaptations, however, have caused an increase in farm size, a corresponding decrease in population, and thereby new and severe problems in local government, education, health care, and highways. Since the 1930s the federal government has provided important help through relief payments, reclamation programs, military installations, and farm stabilization and conservation programs, but the Great Plains will continue to produce raw materials and retain its "colonial status" in relation to the rest of the United States. As pressure for institutional change increases, appropriate adjustments are likely to be made.

Mary Hargreaves, a historian, examines the impact of sparse population on Great Plains institutions, a topic introduced in the preceding essay by Gilbert Fite. Throughout its recent history, Hargreaves shows, Great Plains society has had to adjust to changing spatial relationships. Like Roger Grant, she illustrates the interplay of environmental and cultural forces. The geographic characteristics of the plains, independent of technology, have dictated a farm size much larger than eastern norms. But this tendency has been immensely strengthened by the subsequent introduction of automobiles, trucks, and air travel, as well as sophisticated farm machinery. Sidewalk and suitcase farming has long since become the dominant pattern in some areas of the High Plains. Hargreaves details the disruption of established institutions that has resulted from decreasing population and changing residential patterns. Although space, rather

than time or culture as defined by Berkhofer, is her organizing concept, she is not concerned with establishing the spatial unity of the plains, as Webb was. Her analysis is in some respects a postscript to Kraenzel, although she does not outline regional solutions to the problem of low-density population.

Changes in the location and size of population are central to the essays by both Fite and Hargreaves. Glen Fuguitt, a rural sociologist, studies city and village population trends since 1950. In contrast to John Hudson's essay, which treats town formation and development, Fuguitt's analysis concerns patterns since 1950 only. He notes that since most plains towns were established to serve an agricultural population of greater density than prevails today, they are declining at extremely high rates compared to towns in other parts of the nation. Even though the rate of decline has been slowed since 1970, Fuguitt reports, loss of population and an increasingly aged population require that planning for the future of these communities must be undertaken so that appropriate adjustments may be made in institutional structures and functions.

Taken collectively, these contributions to our knowledge and understanding of the Great Plains reveal that, ever since the earliest human habitations in the region, environmental forces have compelled men to adjust their ways to climatic changes, topography, and locational relationships. At the same time, cultural traits, imported in migrant streams, frequently survived in unfamiliar and sometimes uncongenial environments. Prehistoric inhabitants had few options compared to modern society, which has developed complex technologies that have greatly enlarged the range and choice of possible behaviors. The adjustments of the past century have generally been successful, though in times of ample rainfall memories have been unfortunately short and practices often wasteful. Although none of the essayists presumes to predict the future, it seems clear that periods of severe climatic and economic distress will occur and that yet unknown accommodations will have to be made, especially if water resources are depleted and if drought exceeds anything so far experienced in the modern era.

## Notes

1. John Wesley Powell, *Report on the Lands of the Arid Region of the United States*, 45th Cong., 2d sess., House Executive Document 73, serial 1805 (Washington, D.C.: Government Printing Office, 1878). Wallace Stegner has produced a modern edition published by Harvard University Press in 1962. For the

political and scientific context of the report, see Stegner's biography of Powell, *Beyond the Hundredth Meridian* (Boston: Houghton Mifflin, 1953), pp. 202-42. For others among Powell's contemporaries who identified the insufficiency of rainfall for agriculture on the Great Plains, see Walter M. Kollmorgen, "The Woodman's Assaults on the Domain of the Cattleman," *Annals of the Association of American Geographers* 59 (June 1969): 224.

2. Powell, *Report*, pp. 2-4.

3. The classic regionalist study is Howard W. Odum and Harry E. Moore, *American Regionalism: A Cultural-Historical Approach to National Integration* (New York: Holt, 1938). An effective recent study is Raymond D. Gastil, *Cultural Regions of the United States* (Seattle: University of Washington Press, 1975), but see also Wilbur Zelinsky, *The Cultural Geography of the United States* (Englewood Cliffs, N. J.: Prentice-Hall, 1973), Daniel Elazar, *American Federalism: A View from the States* (New York: Crowell, 1966), and Carle C. Zimmerman, "The Great Plains as a Region," in *Symposium on the Great Plains of North America*, ed. Carle E. Zimmerman and Seth Russell (Fargo: North Dakota Institute for Regional Studies, 1967), pp. 3-9. No effort is made in the pages that follow to provide a comprehensive bibliography of Great Plains studies. I have selected a small number of books and articles that seem to have special importance for studying the interplay of environment and culture in the Great Plains region.

4. Walter Prescott Webb, *The Great Plains* (Boston: Ginn, 1931); Gregory M. Tobin, *The Making of a History: Walter Prescott Webb and "The Great Plains"* (Austin: University of Texas Press, 1976), pp. 87-96.

5. Webb, *Great Plains*, p. 9.

6. *Ibid.*, pp. 507, 9, 8.

7. *Ibid.*, pp. 140f. Cf. Frederick Jackson Turner, "The Significance of the Frontier in American History," in *The Frontier in American History* (reprint ed., New York: Holt, Rinehart and Winston, 1962), p. 12.

8. David J. Wishart, "The Changing Position of the Frontier of Settlement on the Eastern Margins of the Central and Northern Great Plains, 1854-1890," *Professional Geographer* 21 (May 1969): 153-57. See also Fred A. Shannon, *The Farmer's Last Frontier: Agriculture, 1860-1897* (New York: Holt, Rinehart and Winston, 1945), especially chapter 2, "Agricultural Settlement in New Areas," pp. 26-50.

9. Tobin, *Making of a History*, pp. 110f., 116-26; Fred A. Shannon, *An Appraisal of Walter Prescott Webb's "The Great Plains"* (New York: Social Science Research Council, 1940), p. 12 and passim. John W. Caughey wrote a brief rejoinder to Shannon in defense of Webb, *Mississippi Valley Historical Review* 27 (December 1940): 442-44.

10. James C. Malin, *The Grassland of North America: Prolegomena to Its History* (Lawrence, Kans.: published by the author, 1947), p. 154; reprinted with addenda by Peter Smith, Gloucester, Mass., 1967.

11. Malin, *Grassland*, pp. 163, 265. See also Robert G. Bell, "James C. Malin and the Grasslands of North America," *Agricultural History* 46 (July

1972): 414-24, and Thomas H. LeDuc, "An Ecological Interpretation of Grasslands History: The Works of James C. Malin as Historian and as Critic of Historians," *Nebraska History* 31 (September 1950): 226-33. LeDuc shows that Malin's work generally is integrated by time relationships; but this is not true of *The Grassland of North America*.

12. Malin, *Grassland*, p. 266.

13. Carl F. Kraenzel, *The Great Plains in Transition* (Norman: University of Oklahoma Press, 1955), p. 6.

14. *Ibid.*, p. 165.

15. *Ibid.*, p. 283 and especially chapter 21.

16. *Ibid.*, p. 8.

17. *Ibid.*, pp. 125f.

18. *Ibid.*, p. 285. Scholars in various disciplines continue to find the environmentalist approach to the problems of the Great Plains to be useful. As an outstanding example, see the volume by Howard W. Ottoson and his colleagues, *Land and People of the Northern Plains Transition Area* (Lincoln: University of Nebraska Press, 1966). Another excellent contribution is Leslie Hewes, *The Suitcase Farming Frontier: A Study in the Historical Geography of the Central Great Plains* (Lincoln: University of Nebraska Press, 1973), which treats non-resident wheat farming in western Kansas and eastern Colorado.

19. As examples, see Fred Kniffen, "Folk Housing: Key to Diffusion," *Annals of the Association of American Geographers* 55 (December 1965): 549-77; Wilbur Zelinsky, *The Cultural Geography of the United States* (Englewood Cliffs, N. J.: Prentice-Hall, 1973); *idem*, "An Approach to the Religious Geography of the United States," *Annals of the Association of American Geographers* 51 (June 1961): 139-93; John Hudson, "Two Dakota Homestead Frontiers," *ibid.* 63 (December 1973): 442-62; *idem*, "Migration to an American Frontier," *ibid.* 66 (June 1976): 242-65; Henry Glassie, *Pattern in the Material Folk Culture of the Eastern United States* (Philadelphia: University of Pennsylvania Press, 1968).

20. To illustrate, in Gastil's recent book the Great Plains are not identified as a separate region and are accorded less than three pages, interestingly enough, as a district within the Rocky Mountain region (Gastil, *Cultural Regions*, pp. 234-36).

21. Earl Pomeroy, "Toward a Reorientation of Western History: Continuity and Environment," *Mississippi Valley Historical Review* 41 (March 1955): 581.

22. Cf. Webb: "The innovations of the Great Plains are more remarkable than the survivals" (*Great Plains*, p. 510).

23. Among Pomeroy's works are *The Territories and the United States, 1861-1890* (Philadelphia: University of Pennsylvania Press, 1947; *In Search of the Golden West: The Tourist in Western America* (New York: Knopf, 1957); and *The Pacific Slope* (New York: Knopf, 1965). See also Gene M. Gressley, *Bankers and Cattlemen* (New York: Knopf, 1966). Gressley has also edited a volume of essays that are illustrative of this point of view entitled *The American*

*West: A Reorientation* (Laramie: University of Wyoming, 1966). For a useful historiographical review, see Harry N. Scheiber, "Turner's Legacy and the Search for a Reorientation of Western History," *New Mexico Historical Review* 44 (July 1969): 231-48. For a recent article in this category by a geographer, see David Wishart, "The Fur Trade of the West, 1807-1840," in David H. Miller and Jerome O. Steffen, eds., *The Frontier: Comparative Studies* (Norman: University of Oklahoma Press, 1977), pp. 161-200.

24. Cf. Webb: "In history the differences are more important than the similarities. When one makes a comparative study of the section, the dominant truth which emerges is expressed in the word *contrast*" (*Great Plains*, p. 507).

25. Webb, for example, asserted that "land is the matrix out of which culture grows" (Tobin, *Making of a History*, p. 151, n. 21).

26. Robert Berkhofer, Jr., "Space, Time, Culture, and the New Frontier," *Agricultural History* 38 (January 1964): 25. Geographers have had a long-standing interest in the role of culture in the history of specific areas. Among the earliest exponents of cultural geography were Paul Vidal de la Blache and Lucien Febvre. See the latter's *A Geographical Introduction to History* (New York: Knopf, 1925) or, more briefly, Carl Sauer, "Foreword to Historical Geography," *Annals of the Association of American Geographers* 31 (March 1941): 1-24.

27. Berkhofer, "Space, Time, Culture," p. 24.

28. *Ibid.*, p. 29.

29. *Ibid.*, p. 30.

30. E. Cotton Mather, "The American Great Plains," *Annals of the Association of American Geographers* 62 (June 1972): 237-57.

31. *Ibid.*, p. 246, n. 7.

32. Donald W. Meinig, *Imperial Texas: An Interpretive Essay in Cultural Geography* (Austin: University of Texas Press, 1969), pp. 7, 8, 17, 121-24. Since the mid-1960s a variety of materials on the Great Plains have been published that blend, with varying degrees of success, cultural and environmental variables. One of the most important is a volume of essays edited by Brian Blouet and Merlin Lawson, *Images of the Plains: The Role of Human Nature in Settlement* (Lincoln: University of Nebraska Press, 1975). See also Terry G. Jordan, *German Seed in Texas Soil: Immigrant Farmers in Nineteenth-Century Texas* (Austin: University of Texas Press, 1966); Robert R. Dykstra, *The Cattle Towns* (New York: Knopf, 1968); Frederick C. Luebke, *Immigrants and Politics: The Germans of Nebraska, 1880-1900* (Lincoln: University of Nebraska Press, 1969); and David Wishart, "Cultures in Cooperation and Conflict: Indians in the Fur Trade on the Northern Great Plains, 1807-1840," *Journal of Historical Geography* 2 (1976): 311-28.